UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,729	03/13/2001	Kannan Srinivasan	01-168	2030

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EXAMINER
WOO, RICHARD SUKYOON

ART UNIT	PAPER NUMBER
3629	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-16* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some *   c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____ .
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____ .
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

DETAILED ACTION

Specification

1)   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract includes two paragraphs. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

2)   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3)   Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a

grant of a patent to "[w]hoever invents or discovers any new and useful process,

machine, manufacture, or composition or matter, or any new and useful improvement

thereof." Therefore, a fundamental premise is that a patent is a statutorily created

vehicle for Congress to confer an exclusive right to the inventors for "inventions" that

promote the progress of "science and the useful arts". The phrase "technological arts"

has been created and used by the courts to offer another view of the term "useful arts".

See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of

whether an invention is eligible for a patent is to determine if the invention is within the

"technological arts".

Further, despite the express language of §101, several judicially created

exceptions have been established to exclude certain subject matter as being patentable

subject matter covered by §101. These exceptions include "laws of nature", "natural

phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209

USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention

incorporates abstract ideas, such as mathematical algorithms, the invention may

nevertheless be statutory subject matter if the invention as a whole produces a "useful,

concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial

Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent

Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences

(BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held

that the recited mathematical algorithm did not render the claim as a whole non-

statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson,* 409

U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the

issue of the "technological arts". The court developed a "technological arts" analysis:

> The "technological" or "useful" arts inquiry must focus on whether
> the claimed subject matter...is statutory, not on whether the product of the
> claimed subject matter...is statutory, not on whether the prior art which the
> claimed subject matter purports to replace...is statutory, and not on
> whether the claimed subject matter is presently perceived to be an
> improvement over the prior art, e.g., whether it "enhances" the operation
> of a machine. *In re Toma* at 857.

In *Toma,* the claimed invention was a computer program for translating a source human

language (e.g., Russian) into a target human language (e.g., English). The court found

that the claimed computer implemented process was within the "technological art"

because the claimed invention was an operation being performed by a computer within

a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*

never addressed this prong of the test. In *State Street Bank & Trust Co.,* the court

found that the "mathematical exception" using the Freeman-Walter-Abele test has little,

if any, application to determining the presence of statutory subject matter but rather,

statutory subject matter should be based on whether the operation produces a "useful,

concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore,

the court found that there was no "business method exception" since the court decisions

that purported to create such exceptions were based on novelty or lack of enablement

issues and not on statutory grounds. Therefore, the court held that "[w]hether the

patent's claims are too broad to be patentable is not to be judged under §101, but rather

under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these

analysis goes towards whether the claimed invention is non-statutory because of the

presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele

test used in *Toma*. However, State Street never addressed the second part of the

analysis, i.e., the "technological arts" test established in *Toma* because the invention in

State Street (i.e., a computerized system for determining the year-end income,

expense, and capital gain or loss for the portfolio) was already determined to be within

the technological arts under the *Toma* test. This dichotomy has been recently

acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a

§101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*,

61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present application, there is no significant recitation of the data processing

system or calculating computer for performing data processing operations.

Claim Rejections - 35 USC § 112

4)   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5)   Claims 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

In Claim 14, line 2 and Claim 15, line 2, respectively, the recitation of step "(d)"

renders the claim indefinite because the independent claim 1 already includes the step

(d). If the Claims 14 and 15 introduce the new additional step, the step cannot be "(d)".

Claim Rejections - 35 USC § 102

6)   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7)   Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Herz et

al. (US 2001/0014868).

As for Claim 1, Herz et al. discloses a method comprising:

(a) receiving configuration data from the Internet merchant (see Fig. 1, para.

[0004], [0005]);

(b) randomly sampling visitors to the Internet website according to the

configuration data (see supra paragraph and [0006], [0021]);

(c) determining an optimal price using the data acquired in step (b) (see Supra

paragraphs, [0236], [0241]); and

(d) displaying the optimal price to the Internet merchant (see Id.).

As for Claim 2, Herz et al. further discloses the method, wherein said configuration data includes sampling parameters (see paragraphs [0004], [0005], [0006], [0021]).

As for Claim 3, Herz et al. further discloses the method, where said configuration data includes potential prices that are offered to the sampled population in step (b) (see paragraphs [0021], [0236], [0241]).

As for Claim 4, Herz et al. further discloses the method, wherein said configuration data includes whether the sampling is to be performed continuously or at discrete intervals (see Supra paragraphs).

As for Claim 5, Herz et al. further discloses the method, wherein said configuration data includes data for segmenting the population into clusters (see paragraphs [0005], [0006]).

As for Claim 6, Herz et al. further discloses the method, wherein said configuration data includes a minimum threshold for automatically propagating an optimal price (see paragraphs [0021], [0236], [0241]).

As for Claim 7, Herz et al. further discloses the method, wherein said random sampling is performed on the entire population of visitors to the website (see paragraphs [0004]-[0006]).

As for Claim 8, Herz et al. further discloses the method, wherein visitors to the website are grouped, and each group is sampled separately (see Id.).

As for Claim 9, Herz et al. further discloses the method, wherein an optimal price is determined for each group (see paragraphs [0006], [0021], [0236], [0241]).

As for Claim 10, Herz et al. further discloses the method including updating the website such that a visitor is offered the optimal price determined in step (c) according to the visitor's group (see Id.).

As for Claim 11, Herz et al. further discloses the method, wherein groups are determined based upon prior purchasing behavior (see Supra paragraphs).

As for Claim 12, Herz et al. further discloses the method, wherein groups are determined based upon demographic characteristics (see paragraphs [0005]-[0006]).

As for Claim 13, Herz et al. further discloses the method, wherein step (c) comprises determining a price that optimizes profit (see paragraphs [0236], [0241]).

As for Claim 14, Herz et al. further discloses the method including: automatically updating the website to use the optimal price determined in step (c) (see Id.).

As for Claim 15, Herz et al. further disclose the method including: automatically updating the website to use the optimal price determined in step (c) if the optimal price meets a minimum threshold (see Id.).

As for Claim 16, Herz et al. further discloses the method, wherein the minimum threshold is that the optimal price determined in step (c) is a predetermined percentage better than a currently offered price for the product (see paragraphs [0005], [0006], [0021], [0236], [0241]).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 2001-117999 is cited to show an internet based selling system for agricultural products, wherein the system receives customer responses relevant to indicated price data in sample diagram display screen based on which final price is decided.

US 2001/0027455 is cited to show a computer based method for accessing market attractiveness and competitiveness of an idea and planning to implement the idea.

US 6,578,014 is cited to show a method and apparatus for effectuating post-transaction priced transactions of information goods, and services, wherein a buyer determines the price he pays after receiving the information, goods, and services from the seller.

US 6,010,385 is cited to show a method and apparatus for collecting information about the customer utilizing a POS terminal. Information concerning the customer is analyzed and the resulting information is used to improve the efficiency of the customer's next visit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Woo whose telephone number is 703-308-7830. The examiner can normally be reached on Monday-Friday from 8:30 AM -5:00 PM.
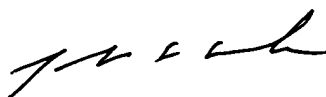
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 703-308-2702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
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you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

Richard Woo
Patent Examiner
Art Unit 3629
December 12, 2004

JOHN G. WEISS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600